



EAST - [default.wsp:1]

File View Edit Tools Window Help

Pending

Active

- L1: (327) (demux or demultiplex\$3 or demodulat\$3 or spars\$3) same (VO\$1 or VOP\$1) same (decod\$3...
- L2: (0) descriptor\$3 same (decoders or decompressors)
- L4: (1) 1 and 3
- L5: (3) (demux or demultiplex\$3 or demodulat\$3 or spars\$3) same (VO\$1 or VOP\$1) same (decod\$3 or...
- L6: (2930) (demux or demultiplex\$3 or demodulat\$3 or spars\$3) same (VO\$1 or VOP\$1)
- L7: (1) 3 and 6
- L3: (54) descriptor\$3 same (decoders or decompressors)
- L8: (13) descriptor\$3 same (decoders or decompressors) same compos\$5
- L9: (14) (demux or demultiplex\$3 or demodulat\$3 or spars\$3) same (VO\$1 or VOP\$1) same (decod\$3 o...
- L10: (1560) (demux or demultiplex\$3 or demodulat\$3 or spars\$3) same (decod\$3 or decompress\$3) sa...
- L11: (194) (demux or demultiplex\$3 or demodulat\$3 or spars\$3) same (decod\$3 or decompress\$3) sam...
- L12: (13) (demux or demultiplex\$3 or demodulat\$3 or spars\$3) same (decod\$3 or decompress\$3) same...
- L13: (76) (decod\$3 or decompress\$3) same descriptor\$5 same (combi\$5 or compos\$5)
- L14: (194) (demux or demultiplex\$3 or demodulat\$3 or spars\$3) same (decod\$3 or decompress\$3) sam...
- L15: (43134) (decoders or decompressors)
- L16: (46) 14 and 15**

Failed

Saved

Search List Browse

Display

Highlight all hit terms in gray

14 and 15

	U	1	Document	Issue Da	Page	Title	Current ©	Current XR	Retrieval	Inventor	S	C	P	3	
1	<input type="checkbox"/>	<input type="checkbox"/>	US	20030918	19	PROTO implementation in	717/106			Lifshitz, Zvi	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US	20030703	10	Apparatus for receiving	375/240.08	375/240.26		Lee, Sang-Rae	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US	20030605	19	Apparatus and method for	375/340	375/324		Kim, Min-Goo et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US	20030424	8	Motion information coding	375/240.12			Bottreau, Vincent et	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US	20030410	10	Supplemental data path for	348/569	725/151		Shintani, Peter Rae et	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US	20030306	21	Intelligent fabric	370/395.21	370/395.64		Tinsley, David et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US	20030306	15	Systems and methods for	345/762			Tinsley, David et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US	20030227	19	Systems and method for	709/231	709/204;		Tinsley, David et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US	20030213	28	Method and apparatus for	375/147	375/150		Dahlman, Erik et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NUM

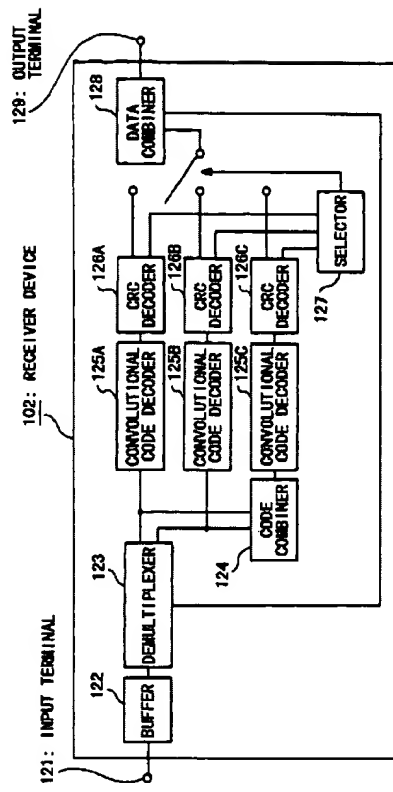
US-PAT-NO: 6202188  
DOCUMENT-IDENTIFIER: US 6202188 B1  
TITLE: Data transmission device

----- KWIC -----

Detailed Description Text - DETX (11):  
Next, the description will be given with re  
102.  
The data outputted from the transmitter device  
transmitted to an input terminal 121 of the re  
thus

	Document I	Kind Code	Source	Issue D	Page
29	US 6380969		USPAT	2002043	25
30	US 6330034		USPAT	2001121	20
31	US 6202188		USPAT	2001031	38
32	US 6185602		USPAT	2001020	15
33	US 6092107		USPAT	2000071	14
34	US 5987214		USPAT	1999111	23
35	US 5754599		USPAT	1998051	9
36	US 5649318		USPAT	1997071	18
37	US 5410601		USPAT	1995042	55
38	US 5333155		USPAT	1994072	12
39	US 4651208		USPAT	1987031	13
40	US 4451916		USPAT	1984052	99
41	US 4334125		USPAT	1982060	9
42	US 4191858		USPAT	1980030	11
43	US 4005274		USPAT	1977012	15
44	EP 933939	A1, A4	EPO	1999080	51
45	NA84034959		IBM TD	1984030	2
46	KR 2001076		DERWEN	2002101	1

FIG. 2



**FIG 2**

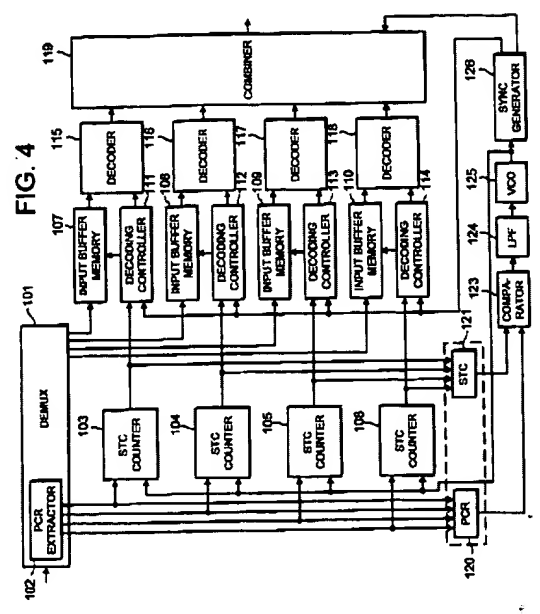
DERWENT-ACC-NO: 1999-387323  
DERWENT-WEEK: 200276  
COPYRIGHT 1999 DERWENT INFORMATION LTD  
TITLE: Decoding method for v  
video image signals si

----- KWIC -----

Basic Abstract Text - ABTX (2):

DETAILED DESCRIPTION

	Document I	Kind Code	Source	Issue D	Pages
1	US 2003007		US-PGP	2003042	8
2	US 2002017		US-PGP	2002112	29
3	US 6567427		USPAT	2003052	46
4	US 5692104		USPAT	1997112	18
5	US 5596680		USPAT	1997012	18
6	US 5301197		USPAT	1994040	7
7	US 4601044		USPAT	1986071	25
8	US 4583236		USPAT	1986041	16
9	US 4337531		USPAT	1982062	7
10	US 4236140		USPAT	1980112	27
11	JP 1131332		JPO	1999110	
12	JP 1131331		JPO	1999110	
13	JP 1131331		DERWEN	1999110	
14	EP 924935		DERWEN	2002110	29



US-PAT-NO: 6535530

DOCUMENT-IDENTIFIER: US 6535530 B1

TITLE: Apparatus and method  
data

----- KWIC -----

Detailed Description Text - DETX (4):

As shown in FIG. 1, the demultiplexing apparatus embodiment comprises a demultiplexer 301 which stream in which a plurality of object data a

	Document I	Kind Code	Source	Issue D	Pages
1	US 2003004		US-PGP	2003030	21
2	US 2003004		US-PGP	2003030	15
3	US 2003004		US-PGP	2003022	19
4	US 2002015		US-PGP	2002102	13
5	US 2001002		US-PGP	2001100	38
6	US 6577679		USPAT	2003061	49
7	US 6567427		USPAT	2003052	46
8	US 6535530		USPAT	2003031	13
9	US 6529526		USPAT	2003030	13
10	US 6404814		USPAT	2002061	43
11	US 6384821		USPAT	2002050	24
12	JP 2000299		JPO	2000102	
13	EP 933939	A1, A4	EPO	1999080	51

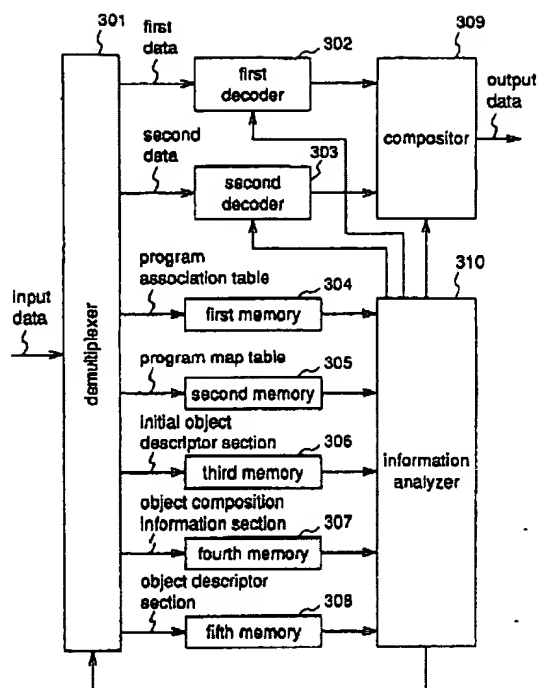
U.S. Patent

Mar. 18, 2003

Sheet 1 of 5

US 6,535,530 B1

Fig.1



FAST - [default.wsp:1]

FileViewEditToolsWindowHelp

Search

List

Browse

Queue

Clear

DB1

USPAT:US-PUB:EPOL

Blends

Default operator

OR

☒ Highlight hits initially

descriptor\$3 same (decoders or decompressors) same compos\$5

Active

L1: (327) (demux or demultiplex\$3 or demodulat\$3 or spars\$3) same (VO\$1 or VOP\$1) same (decod\$3 or

L2: (0) descriptor\$3 same (decoders or decompressors)

L4: (1) 1 and 3

L5: (3) (demux or demultiplex\$3 or demodulat\$3 or spars\$3) same (VO\$1 or VOP\$1) same (decod\$3 or

L6: (2930) (demux or demultiplex\$3 or demodulat\$3 or spars\$3) same (VO\$1 or VOP\$1)

L7: (1) 3 and 6

L3: (54) descriptor\$3 same (decoders or decompressors)

L8: (13) descriptor\$3 same (decoders or decompressors) same compos\$5

Failed

Saved

	U	1	Document I	Issue Da	Page	Title	Current O	Current XR	Retrieval	Inventor	S	C	P	3		I
1	<input type="checkbox"/>	<input type="checkbox"/>	US	20031030	9	Arrangement of images	348/222.1			Owens, James W. et	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	U
2	<input type="checkbox"/>	<input type="checkbox"/>	US	20030306	21	Intelligent fabric	370/395.21	370/395.64		Tinsley, David et al.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	U
3	<input type="checkbox"/>	<input type="checkbox"/>	US	20030306	15	Systems and methods for	345/762			Tinsley, David et al.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	U
4	<input type="checkbox"/>	<input type="checkbox"/>	US	20030227	19	Systems and method for	709/231	709/204;		Tinsley, David et al.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	U
5	<input type="checkbox"/>	<input type="checkbox"/>	US	20030123	9	Dynamic scene description	375/240.08	386/96		Westerink, Peter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	U
6	<input type="checkbox"/>	<input type="checkbox"/>	US	20021024	13	Video transmission and	375/240.01			Martin, Francois	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	U
7	<input type="checkbox"/>	<input type="checkbox"/>	US	20020725	47	Task concurrency	709/102			Catthoor, Francky et	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	U
8	<input type="checkbox"/>	<input type="checkbox"/>	US	20020228	12	System and method for	345/765			Eleftheriadis,	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	U
9	<input type="checkbox"/>	<input type="checkbox"/>	US	20011004	38	Transmission system,	709/202	370/254		Okura, Hirotsugu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	U
10	<input type="checkbox"/>	<input type="checkbox"/>	US	20010510	9	Terminal for composing and	715/500.1	709/102;		Rajan, Ganesh	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	U
11	<input type="checkbox"/>	<input type="checkbox"/>	US 6567427	20030520	46	Image signal multiplexing	370/535	345/419;		Suzuki, Teruhiko et	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	U
12	<input type="checkbox"/>	<input type="checkbox"/>	US 6404814	20020611	43	Transcoding method and	375/240.12	375/240.08		Apostolopoulos, John	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	U
13	<input type="checkbox"/>	<input type="checkbox"/>	EP 933939	19990804	51	METHOD AND SYSTEM				SUZUKI, TERUHIKO	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	E

PUB-NO: EP000933939A1  
DOCUMENT-IDENTIFIER: EP 933939 A1  
TITLE: METHOD AND SYSTEM FOR  
METHOD AND SYSTEM FOR DEMULTI  
TRANSMISSION MEDIUM

----- KWIC -----

Abstract Text - FPAR (1):  
CHG DATE=19990902 STATUS=O> A scene descr

Details Text Image HTML KWIC

	Document I	Kind Code	Source	Issue D	Pages
1	US 2003020		US-PGP	2003103	9
2	US 2003004		US-PGP	2003030	21
3	US 2003004		US-PGP	2003030	15
4	US 2003004		US-PGP	2003022	19
5	US 2003001		US-PGP	2003012	9
6	US 2002015		US-PGP	2002102	13
7	US 2002009		US-PGP	2002072	47
8	US 2002002		US-PGP	2002022	12
9	US 2001002		US-PGP	2001100	38
10	US 2001000		US-PGP	2001051	9
11	US 6567427		USPAT	2003052	46
12	US 6404814		USPAT	2002061	43
13	EP 933939	A1, A4	EPO	1999080	51

Details Text Image HTML Full

(19)  Europäische Patentamt  
European Patent Office  
Office européen des brevets  
(11) EP 0 933 939 A1

(12) EUROPEAN PATENT APPLICATION  
published in accordance with Art. 159(3) EPC

(43) Date of publication: 04.08.1999 Bulletin 1999/31  
(21) Application number: 93393939.3  
(22) Date of filing: 17.07.1998  
(31) Int. Cl. 8: H04N 7/08  
(36) International application number: PCT/JP98/03235  
(37) International publication number: WO 99/04862 (28.01.1999 Gazette 1999/04)

(84) Designated Contracting States:  
AT BE CH DE ES FR GB IT LI NL

(30) Priority: 18.07.1997 JP 18284197

(71) Applicant: Sony Corporation  
Tokyo 141-0001 (JP)

(72) Inventors:  
• SUZUKI, Toshihiko,  
Sony Corporation  
Shinjyuku-ku, Tokyo 141-0001 (JP)

• YAGABAKI, Yoichi,  
Sony Corporation  
Shinjyuku-ku, Tokyo 141-0001 (JP)

(74) Representative:  
Metzger, Wolfgang, Dipl.-Ing. et al  
Patentanwälte  
Mitscherlich & Partner,  
Sonnenstrasse 33  
80331 München (DE)

(54) METHOD AND SYSTEM FOR MULTIPLEXING IMAGE SIGNAL, METHOD AND SYSTEM FOR  
DEMULTIPLEXING IMAGE SIGNAL, AND TRANSMISSION MEDIUM

(57) A scene descriptor SD, object descriptors ODs and respective bitstreams ESs are separated by a demultiplexing circuit, and the respective bitstreams ESs are decoded by decoders 207-1 to 207-n. Within output data from the decoders, output data associated with the same object descriptor OD (output data composing the same object) are mixed by a mixer circuit 201. Subse-

quently, the mixed output data is supplied to an object synthesizer circuit 271-1 of a synthesizer circuit 252 which is supplied with a corresponding mode. Then, the object synthesizer circuit 271-1 corresponds one image to one object to perform texture mapping.

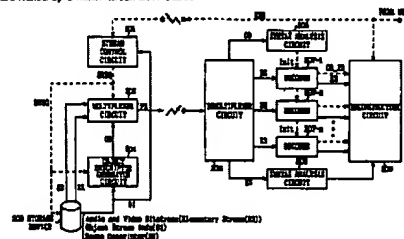


FIG. 1

Printed by Janssen (GmbH) Druckerei Services  
1 14 762

EP 0 933 939 A1



FAST - [default.wsp:1]

File View Edit Tools Window Help

Drafts

Pending

Active

L1: (327) (demux or demultiplex\$3 or demodulat\$3 or spars\$3) same (VO\$1 or V

L2: (0) descriptor\$3 same (decoders or decompressors)

L4: (1) 1 and 3

L5: (3) (demux or demultiplex\$3 or demodulat\$3 or spars\$3) same (VO\$1 or V

L6: (2930) (demux or demultiplex\$3 or demodulat\$3 or spars\$3) same (VO\$1 or V

L7: (1) 3 and 6

L3: (54) descriptor\$3 same (decoders or decompressors)

Failed

Search

Find

Reset

Queue

Clear

DBs

USPAT,USPCPUB,EPO,JPO,DERWENT,IBM,LTDB

Burds

Default operator

OR

Highlight all hits initially

descriptor\$3 same (decoders or decompressors)

Current

CurrentXR

Retrieval

HTML

	U	1	Document I	Issue Da	Page	Title	Current O	CurrentXR	Retrieval	Inventor	S	G	P	2	3	
1	<input type="checkbox"/>	<input type="checkbox"/>	US	20031030	9	Arrangement of images	348/222.1			Owens, James W. et	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	US	20031009	35	Data storewidth accelerator	710/68			Fallon, James J.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	US	20030515	13	Apparatus for taking up an	356/3			Riegl, Johannes et al.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	US	20030306	21	Intelligent fabric	370/395.21	370/395.64		Tinsley, David et al.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>	US	20030306	15	Systems and methods for	345/762			Tinsley, David et al.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	<input type="checkbox"/>	<input type="checkbox"/>	US	20030227	19	Systems and method for	709/231	709/204;		Tinsley, David et al.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	<input type="checkbox"/>	<input type="checkbox"/>	US	20030130	12	Method for visual display of	725/153			Chevallier, Louis et al.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	<input type="checkbox"/>	<input type="checkbox"/>	US	20030130	37	Partial encryption and PID	380/217	380/216		Candelore, Brant L. et	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	<input type="checkbox"/>	<input type="checkbox"/>	US	20030123	9	Dynamic scene description	375/240.08	386/96		Westerink, Peter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	<input type="checkbox"/>	<input type="checkbox"/>	US	20021024	13	Video transmission and	375/240.01			Martin, Francois	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	<input type="checkbox"/>	<input type="checkbox"/>	US	20020725	47	Task concurrency	709/102			Catthoor, Francky et	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	<input type="checkbox"/>	<input type="checkbox"/>	US	20020725	51	Content independent data	341/51			Fallon, James J.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	<input type="checkbox"/>	<input type="checkbox"/>	US	20020627	16	System and method for	375/240			Fallon, James J. et al.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	<input type="checkbox"/>	<input type="checkbox"/>	US	20020613	6	Implementation of media	348/100	348/101		Lifshitz, Zvi	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	<input type="checkbox"/>	<input type="checkbox"/>	US	20020606	29	Systems and methods for	713/2			Fallon, James J. et al.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	<input type="checkbox"/>	<input type="checkbox"/>	US	20020321	30	Multimedia data	725/32			Ando, Tsutomu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Ready

NUM

US-PAT-NO: 6567427

DOCUMENT-IDENTIFIER: US 6567427 B1

TITLE: Image signal multiple  
signal demultiplexing  
transmission media

----- KWIC -----

Detailed Description Text - DETX (22):  
Thus, the one scene descriptor SD is comp

Details Text Image HTML KWIC

	Document I	Kind Code	Source	Issue D	Pages
1	US 6567427		USPAT	2003052	46
2	US 5692104		USPAT	1997112	18
3	US 5596680		USPAT	1997012	18

Details Text Image HTML



US006567427B1

(13) United States Patent  
Suzuki et al.

(10) Patent No.: US 6,567,427 B1  
(45) Date of Patent: May 20, 2003

(54) IMAGE SIGNAL MULTIPLEXING  
APPARATUS AND METHODS, IMAGE  
SIGNAL DEMULTIPLEXING APPARATUS  
AND METHODS, AND TRANSMISSION  
MEDIA

WO 98/0593 3/1998 HDAN/7/26

## OTHER PUBLICATIONS

Kotaka Asai, "MPEG4 Video Verification Mode (in Japanese)", Preprints of 1996 Winter Meeting of Image Media Section, The Institute of Television Engineers of Japan, Dec., 1996, p. 33-36 (Tokyo) 1996.

Minoru Enoh, "Trend of MPEG4 Moving Picture Coding Standardization (in Japanese)", with an English Abstract "Current Status of An Emerging Coding Standard, MPEG4", Technical Report of IEICE, vol. 93, No. 468, p. 55-60 (Tokyo) 1996.

Toshio Miki, Toshiro Kawahara, Tomoyuki Oya, Sanae Hoya, "Trend in Standardization of MPEG4 (in Japanese)", with an English Abstract "MPEG4 Standardization Activities", Technical Report of IEICE, vol. 93, No. 339, p. 43-49 (Tokyo) 1996.

(List continued on next page.)

(75) Inventor: Terukiko Suzuki, Chiba (JP); Yukiaki Yagasaki, Tokyo (JP)

(73) Assignee: Sony Corporation, Tokyo (JP)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: 09/773,238

(22) Filed: Mar. 18, 1999

## Related U.S. Application Data

(43) Continuation of application No. PCT/JP98/02255, filed on Jul. 17, 1998.

## Foreign Application Priority Data

Int. 18, 1997 (JP) 9-193641

(51) Int. Cl. B04J 3/02

(52) U.S. Cl. 370/335; 370/337; 370/542;

(58) Field of Search 370/322; 345/419; 345/580

(58) Field of Search 370/485, 535;

(58) Field of Search 370/537, 542, 522, 345/581, 582, 419

## References Cited

## U.S. PATENT DOCUMENTS

5,179,443 A 1/1993 Englund et al. 358/141  
5,370,300 A 7/1994 Clifford et al. 348/472  
5,418,570 A 5/1995 Stone et al. 348/413  
6,345,688 B1 6/2001 Paine 382/154  
6,285,370 B1 6/2001 McDowell et al. 345/419  
6,381,234 B1 6/2002 Mori et al. 370/537

## FOREIGN PATENT DOCUMENTS

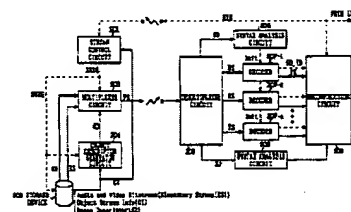
EP 0733970 A2 1/1997 HDAN/7/26  
JP 10-004539 1/1998 HDAN/7/08

Primary Examiner—Min Jung  
(74) Attorney, Agent, or Firm—Sommerschein, Nath & Rosenzweig

## (57) ABSTRACT

In an image signal demultiplexing apparatus, a scene descriptor, object descriptors and respective bitstreams are separated by a demultiplexing circuit, and the respective bitstreams are decoded by decoders. Within output data from the decoders, output data associated with the same object descriptor (output data composing the same object) are mixed by a mixer circuit. Subsequently, the mixed output data is supplied to an object synthesizer circuit of a synthesizer circuit which is supplied with a corresponding code. Then, the object synthesizer circuit corresponds one image to one object to perform texture mapping. An image signal multiplexing apparatus multiplexes the scene descriptor, respective bitstreams, and information related to the bitstreams.

20 Claims, 39 Drawing Sheets



Details Text Image HTML Full

US-PAT-NO: 6404814

DOCUMENT-IDENTIFIER: US 6404814 B1

TITLE: Transcoding method and  
predictively-coded object  
predictively-coded block

----- KWIC -----

Detailed Description Text - DETX (53):

FIG. 4A is a block diagram showing the structure of a transcoder for predictively coding an object-based picture signal.

U.S. Patent

Jun. 11, 2002 Sheet 4 of 17

US 6,404,814 B1

Details Text Image HTML KWIC

	Document I	Kind Code	Source	Issue D	Pages
1	US 2003020		US-PGP 2003103	9	
2	US 2003004		US-PGP 2003030	21	
3	US 2003004		US-PGP 2003030	15	
4	US 2003004		US-PGP 2003022	19	
5	US 2003001		US-PGP 2003012	9	
6	US 2002015		US-PGP 2002102	13	
7	US 2002009		US-PGP 2002072	47	
8	US 2002002		US-PGP 2002022	12	
9	US 2001002		US-PGP 2001100	38	
10	US 2001000		US-PGP 2001051	9	
11	US 6567427		USPAT 2003052	46	
12	US 6404814		USPAT 2002061	43	
13	EP 933939	A1, A4	EPO 1999080	51	

Details Text Image HTML Full

Details Text Image HTML Full

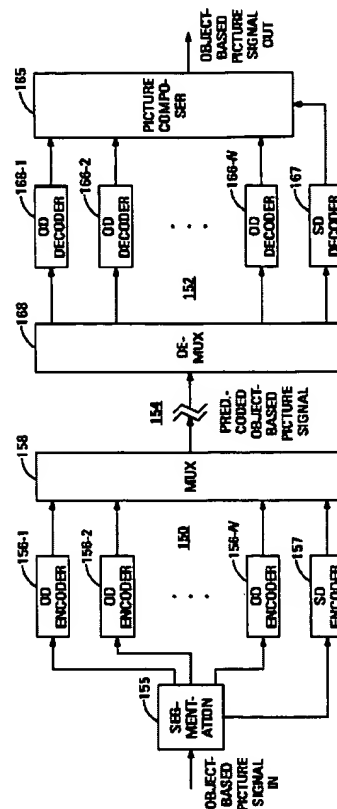
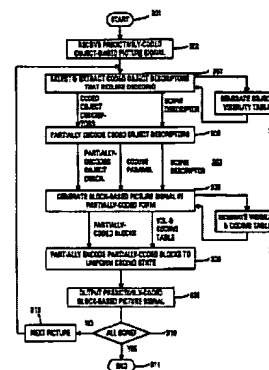
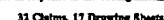


FIG. 4A

 Details
  Text
  Image
  HTML



US-PAT-NO: 6611262  
DOCUMENT-IDENTIFIER: US 6611262 B1  
TITLE: Generation of a bit s  
image/audio data that is multiplex  
in ascii format

----- KWIC -----

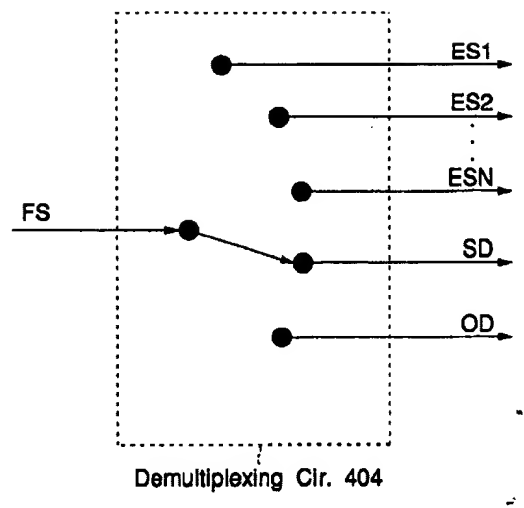
Detailed Description Text - DETX (27):

Returning to FIG. 9, a demultiplexing circuit 404

	Document I	Kind Code	Source	Issue D	Page
7	US 2003002		US-PGP	2003013	12
8	US 2003002		US-PGP	2003013	37
9	US 2003001		US-PGP	2003012	9
10	US 2002015		US-PGP	2002102	13
11	US 2002009		US-PGP	2002072	47
12	US 2002009		US-PGP	2002072	51
13	US 2002008		US-PGP	2002062	16
14	US 2002007		US-PGP	2002061	6
15	US 2002006		US-PGP	2002060	29
16	US 2002003		US-PGP	2002032	30
17	US 2002002		US-PGP	2002022	12
18	US 2001005		US-PGP	2001121	29
19	US 2001002		US-PGP	2001100	38
20	US 2001000		US-PGP	2001070	21
21	US 2001000		US-PGP	2001051	9
22	US 6624761		USPAT	2003092	51
23	US 6615293		USPAT	2003090	49
24	US 6611262		USPAT	2003082	43

Details Text Image HTML Full

FIG.9



Details Text Image HTML Full

US-PAT-NO: 6624761  
DOCUMENT-IDENTIFIER: US 6624761 B2  
TITLE: Content independent d

----- KWIC -----

Detailed Description Text - DETX (41):  
A decoder module 1104 includes a pluralit  
decoding the input data block using a decode  
sequential

Details | Text | Image | HTML | KWIC

	Document I	Kind Code	Source	Issue D	Page
5	US 2003004		US-PGP	2003030	15
6	US 2003004		US-PGP	2003022	19
7	US 2003002		US-PGP	2003013	12
8	US 2003002		US-PGP	2003013	37
9	US 2003001		US-PGP	2003012	9
10	US 2002015		US-PGP	2002102	13
11	US 2002009		US-PGP	2002072	47
12	US 2002009		US-PGP	2002072	51
13	US 2002008		US-PGP	2002062	16
14	US 2002007		US-PGP	2002061	6
15	US 2002006		US-PGP	2002060	29
16	US 2002003		US-PGP	2002032	30
17	US 2002002		US-PGP	2002022	12
18	US 2001005		US-PGP	2001121	29
19	US 2001002		US-PGP	2001100	38
20	US 2001000		US-PGP	2001070	21
21	US 2001000		US-PGP	2001051	9
22	US 6624761		USPAT	2003092	51

Details | Text | Image | HTML

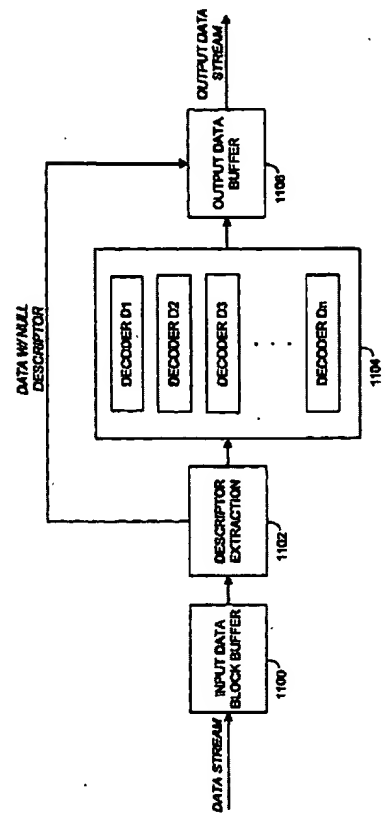


FIG. 11

Details | Text | Image | HTML | Full